

# ePMP™ 1000 GPS Sync Radio

## VERTICAL MARKETS AND SOLUTIONS

### WIRELESS SERVICE PROVIDERS (WISPs)

- Rural Connectivity
- Municipal Connectivity
- Remote Office Connectivity
- Primary or Redundant Connectivity

### ENTERPRISES

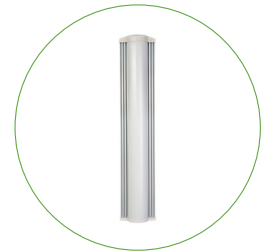
- Video Surveillance Backhaul
- Site Monitoring
- LAN Extension
- Leased Line Replacement

**Wireless service providers and enterprises need reliable, high-quality broadband connectivity that can be rapidly deployed and expanded.** The ePMP architecture provides highly scalable broadband access solution that will allow you to build and expand your network with a faster return on investment. Cambium Networks' radios deliver bandwidth-intensive services such as VoIP, video and data to end users in multiple vertical markets, with high performance and exceptional reliability.

Using the 5 GHz frequency spectrum, the new ePMP architecture is the most effective connectivity solution for reaching the under- and unconnected around the world.



ePMP 1000 GPS Sync Radio



Sector Antenna



ePMP 1000 GPS Sync Radio Integrated with a Sector Antenna

## Main Differentiators

- » **INNOVATIVE GPS SYNC TECHNOLOGY** enables unparalleled spectrum efficiency. This allows for the configuration of more subscribers in your network while preserving consistency and quality of service in spectrum-constrained environments. GPS Sync leads directly to CAPEX and OPEX reductions, resulting in lower installation costs and maintenance, allowing your business to concentrate on growth and profitability.
- » **QUALITY OF SERVICE (QoS)** allows you to confidently offer triple play services – VoIP (Voice over IP), video and data. Providing your customers with excellent service quality ensures their continued loyalty and transforms them into advocates, helping WISPs and enterprises expand their business.
- » **CAMIUM NETWORKS' PROVEN RELIABILITY** has created an unsurpassed connectivity standard in many industries that depend on fixed wireless broadband. Our products undergo rigorous testing and are made from high-quality components.

## Powerful Features

Cambium Networks' ePMP 1000 GPS Sync Radio provides more than 200 Mbps of real user throughput. Using 2x2 MIMO-OFDM technologies, ePMP deployments achieve industry leading data rates.

Utilizing GPS sync, the ePMP is an ideal fit for networks that require capacity and reliability for superior QoS in remote and underserved areas. This integrated PTP and PMP solution features an efficient GPS synchronized operational mode that permits highly scalable frequency reuse.

When deployed with a sector antenna, the ePMP 1000 GPS Sync Radio can be configured as a GPS Synchronized Access Point serving ePMP Integrated Radios configured as Subscriber Modules. When deployed with a high gain point to point antenna, the ePMP GPS Sync Radio can be configured to be a GPS Synchronized Backhaul Master, forming a PTP link with another ePMP Radio module.

PRODUCT	
SALES MODEL NUMBERS	C058900A112A (US/FCC ), C050900A013A (EU), C050900A011A (Other)
SPECTRUM	
CHANNEL SPACING	Configurable on 5 MHz increments
FREQUENCY RANGE	5150 – 5350 MHz, 5470 - 5875 MHz
CHANNEL WIDTH	20 MHz or 40 MHz
INTERFACE	
MAC (MEDIA ACCESS CONTROL) LAYER	Cambium Proprietary
PHYSICAL LAYER	2x2 MIMO/OFDM
ETHERNET INTERFACE	100/1000BaseT, rate auto negotiated (802.3af compliant)
POWERING METHODS SUPPORTED	30V PoE Supply (included), CMM3 & CMM4, 802.3af PoE Supply
PROTOCOLS USED	IPv4, UDP, TCP, IP, ICMP, SSH, SNMPv2c, HTTPs, FTP
NETWORK MANAGEMENT	HTTPs, SSH, FTP, SNMPv2c
VLAN	802.1Q with 802.1p priority
PERFORMANCE	
SUBSCRIBERS PER SECTOR	Up to 120
ARQ	Yes
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL	MCSI = -89 dBm to MCS15 = -66 dBm (per branch)
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 40MHZ CHANNEL	MCSI = -86 dBm to MCS15 = -63 dBm (per branch)
MAXIMUM DEPLOYMENT RANGE @ 20 MHz CHANNEL	Up to 13 miles (up to 20 km)
MODULATION LEVELS (ADAPTIVE)	MCSI (QPSK 1/2) to MCS15 (64QAM 5/6)
LATENCY (nominal, roundtrip)	17 ms
GPS SYNCHRONIZATION	Yes, via Internal GPS, CMM3, or CMM4
QUALITY OF SERVICE	Three level priority (Voice, High, Low) with packet classification by DSCP, COS, VLAN ID, IP & MAC Addr, Broadcast, Multicast and Station Priority
LINK BUDGET	
ANTENNA Options	Antennas for 90° or 120° sectors are available
TRANSMIT POWER RANGE	-20 to +23 dBm (combined, to regional EIRP limit) (1 dB interval)
ANTENNA GAIN	15 dBi (90° sector)
MAXIMUM TRANSMIT POWER	23 dBm combined (5.8 GHz Band)
PHYSICAL	
ANTENNA CONNECTION	50 ohm, RP (Reverse Polarity) SMA
SURGE SUPPRESSION	1 Joule Integrated
ENVIRONMENTAL	IP55
TEMPERATURE	-30°C to +55°C (-22°F to +131°F)
WEIGHT	4.5 kg (10 lbs) with antenna 0.52 kg (1.1 lbs) without antenna
WIND SURVIVAL	190 km/hour (118 mi/hour) with antenna
DIMENSIONS (H x W x D)	Radio: 26.9 x 11 x 7.7 cm (10.6 x 4.3 x 3.0 in) Antenna (excl brackets): 80.4 x 16 x 6.3 cm (31.7 x 6.3 x 2.5 in)
POWER CONSUMPTION (over 100m CAT5 cable)	10 W Maximum, 7.5 W Typical
INPUT VOLTAGE	23 to 56 V
SECURITY	
ENCRYPTION	128-bit AES (CCMP mode)
CERTIFICATIONS	
FCCID	Z8H89FT0006
INDUSTRY CANADA CERT	109W-0006
CE	EN 302 502 v1.2.1 EN 301 893 v1.7.1